

# SEQUENCE LISTING

<110> Hobert, Oliver

<120> METHOD OF SCREENING FOR AGENTS INHIBITING CHLORIDE  
INTRACELLULAR CHANNELS

<130> 5199/92

<160> 18

<170> PatentIn version 3.2

<210> 1

<211> 873

<212> DNA

<213> C. elegans

<400> 1

```
atggcagaag cttaccagat ccaatcaaac ggagatcccc aatcaaaaacc tcttctcgag      60
ctctacgtaa aagcgtcagg aattgatgct cgccgcattg gagccgatct tttctgtcag      120
gaattctgga tggagttgta tgctctttat gagattggag ttgcacgagt cgaagtgaag      180
actgtcaacg tgaattctga agcatttaag aagaactttc tcggagcaca accaccgatt      240
atgattgaag aggaaaaaga gctgacatac actgataatc gagagattga aggacggatc      300
tttcatttgg caaaggaatt caatgttcca ctctttgaaa aggatccatc cgctgagaag      360
agaatagaga acttgtagag gaacttcaaa ctgttcctgc gagcaaaagt agagttcgat      420
aagggaaaaa aggagccatc gagagttgaa gatcttccag cacagattaa agttcactac      480
aatcgagtct gtgagcaact atccaatatt gatcagttgc tatccgagag aaaatctcga      540
tatctacttg gaaacagtat gactgaatat gactgtgaac tgatgccacg tcttcatcat      600
attcgaatta ttggattgtc acttcttgga ttcgatattc cacataattt cactcatctc      660
tggtgcttata tcctcactgc ataccgtaca gcagcattta ttgagagttg tcccgcggat      720
caggacatta ttcatcacta taaagaacaa atgaatctgt tcacaaatca acgtgaaacc      780
ctccaatcgc caacaaaaac gcacacaatt ccggaaaaag tgctatcgga tattcgtggt      840
aaaggacttg ctcccgatgt taatgttcat taa                                     873
```

<210> 2

<211> 241

<212> PRT

<213> Homo sapiens

<400> 2

```
Met Ala Glu Glu Gln Pro Gln Val Glu Leu Phe Val Lys Ala Gly Ser
1          5          10          15

Asp Gly Ala Lys Ile Gly Asn Cys Pro Phe Ser Gln Arg Leu Phe Met
          20          25          30

Val Leu Trp Leu Lys Gly Val Thr Phe Asn Val Thr Thr Val Asp Thr
          35          40          45

Lys Arg Arg Thr Glu Thr Val Gln Lys Leu Cys Pro Gly Gly Gln Leu
          50          55          60

Pro Phe Leu Leu Tyr Gly Thr Glu Val His Thr Asp Thr Asn Lys Ile
65          70          75          80

Glu Glu Phe Leu Glu Ala Val Leu Cys Pro Pro Arg Tyr Pro Lys Leu
          85          90          95

Ala Ala Leu Asn Pro Glu Ser Asn Thr Ala Gly Leu Asp Ile Phe Ala
          100          105          110

Lys Phe Ser Ala Tyr Ile Lys Asn Ser Asn Pro Ala Leu Asn Asp Asn
          115          120          125

Leu Glu Lys Gly Leu Leu Lys Ala Leu Lys Val Leu Asp Asn Tyr Leu
          130          135          140

Thr Ser Pro Leu Pro Glu Glu Val Asp Glu Thr Ser Ala Glu Asp Glu
145          150          155          160

Gly Val Ser Gln Arg Lys Phe Leu Asp Gly Asn Glu Leu Thr Leu Ala
          165          170          175

Asp Cys Asn Leu Leu Pro Lys Leu His Ile Val Gln Val Val Cys Lys
          180          185          190

Lys Tyr Arg Gly Phe Thr Ile Pro Glu Ala Phe Arg Gly Val His Arg
          195          200          205

Tyr Leu Ser Asn Ala Tyr Ala Arg Glu Glu Phe Ala Ser Thr Cys Pro
          210          215          220
```

Asp Asp Glu Glu Ile Glu Leu Ala Tyr Glu Gln Val Ala Lys Ala Leu  
 225 230 235 240

Lys

<210> 3

<211> 247

<212> PRT

<213> Homo sapiens

<400> 3

Met Ser Gly Leu Arg Pro Gly Thr Gln Val Asp Pro Glu Ile Glu Leu  
 1 5 10 15

Phe Val Lys Ala Gly Ser Asp Gly Glu Ser Ile Gly Asn Cys Pro Phe  
 20 25 30

Cys Gln Arg Leu Phe Met Ile Leu Trp Leu Lys Gly Val Lys Phe Asn  
 35 40 45

Val Thr Thr Val Asp Met Thr Arg Lys Pro Glu Glu Leu Lys Asp Leu  
 50 55 60

Ala Pro Gly Thr Asn Pro Pro Phe Leu Val Tyr Asn Lys Glu Leu Lys  
 65 70 75 80

Thr Asp Phe Ile Lys Ile Glu Glu Phe Leu Glu Gln Thr Leu Ala Pro  
 85 90 95

Pro Arg Tyr Pro His Leu Ser Pro Lys Tyr Lys Glu Ser Phe Asp Val  
 100 105 110

Gly Cys Asn Leu Phe Ala Lys Phe Ser Ala Tyr Ile Lys Asn Thr Gln  
 115 120 125

Lys Glu Ala Asn Lys Asn Phe Glu Lys Ser Leu Leu Lys Glu Phe Lys  
 130 135 140

Arg Leu Asp Asp Tyr Leu Asn Thr Pro Leu Leu Asp Glu Ile Asp Pro  
 145 150 155 160

Asp Ser Ala Gly Glu Pro Pro Val Ser Arg Arg Leu Phe Leu Asp Gly  
 165 170 175

Asp Gln Leu Thr Leu Ala Asp Cys Ser Leu Leu Pro Lys Leu Asn Ile  
180 185 190

Ile Lys Val Ala Ala Lys Lys Tyr Arg Asp Phe Asp Ile Pro Ala Glu  
195 200 205

Phe Ser Gly Val Trp Arg Tyr Leu His Asn Ala Tyr Ala Arg Glu Glu  
210 215 220

Phe Thr His Thr Cys Pro Glu Asp Lys Glu Ile Glu Asn Thr Tyr Ala  
225 230 235 240

Asn Val Ala Lys Gln Lys Ser  
245

<210> 4

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4

Lys Leu Gln Phe Val Lys Ala Ser Glu Asp Gly Glu Ser Val Gly His  
1 5 10 15

Cys Pro Ser Cys Gln Arg Leu Phe Met Val Leu Leu Leu Lys Gly Val  
20 25 30

Pro Phe Thr Leu Thr Thr Val Asp Thr Arg Arg Ser Pro Asp Val Leu  
35 40 45

Lys Asp Phe Ala Pro Gly Ser Gln Leu Pro Ile Leu Leu Tyr Asp Ser  
50 55 60

Asp Ala Lys Thr Asp Thr Leu Gln Ile Glu Asp Phe Leu Glu Glu Thr  
65 70 75 80

Leu Gly Pro Pro Asp Phe Pro Ser Leu Ala Pro Arg Tyr Arg Glu Ser  
85 90 95

Asn Thr Ala Gly Asn Asp Val Phe His Lys Phe Ser Ala Phe Ile Lys  
100 105 110

Asn Pro Val Pro Ala Gln Asp Glu Ala Leu Tyr Gln Gln Leu Leu Arg  
115 120 125

Ala Leu Ala Arg Leu Asp Ser Tyr Leu Arg Ala Pro Leu Glu His Glu  
130 135 140

Leu Ala Gly Glu Pro Gln Leu Arg Glu Ser Arg Arg Arg Phe Leu Asp  
145 150 155 160

Gly Asp Arg Leu Thr Leu Ala Asp Cys Ser Leu Leu Pro Lys Leu His  
165 170 175

Ile Val Asp Thr Val Cys Ala His Phe Arg Gln Ala Pro Ile Pro Ala  
180 185 190

Glu Leu Arg Gly Val Arg Arg Tyr Leu Asp Ser Ala Met Gln Glu Lys  
195 200 205

Glu Phe Lys Tyr Thr Cys Pro His Ser Ala Glu Ile Leu Ala Ala Tyr  
210 215 220

Arg Pro Ala Val His Pro Arg  
225 230

<210> 5

<211> 253

<212> PRT

<213> Homo sapiens

<400> 5

Met Ala Leu Ser Met Pro Leu Asn Gly Leu Lys Glu Glu Asp Lys Glu  
1 5 10 15

Pro Leu Ile Glu Leu Phe Val Lys Ala Gly Ser Asp Gly Glu Ser Ile  
20 25 30

Gly Asn Cys Pro Phe Ser Gln Arg Leu Phe Met Ile Leu Trp Leu Lys  
35 40 45

Gly Val Val Phe Ser Val Thr Thr Val Asp Leu Lys Arg Lys Pro Ala  
50 55 60

Asp Leu Gln Asn Leu Ala Pro Gly Thr His Pro Pro Phe Ile Thr Phe  
65 70 75 80

Asn Ser Glu Val Lys Thr Asp Val Asn Lys Ile Glu Glu Phe Leu Glu  
85 90 95

Glu Val Leu Cys Pro Pro Lys Tyr Leu Lys Leu Ser Pro Lys His Pro  
100 105 110

Glu Ser Asn Thr Ala Gly Met Asp Ile Phe Ala Lys Phe Ser Ala Tyr  
115 120 125

Ile Lys Asn Ser Arg Pro Glu Ala Asn Glu Ala Leu Glu Arg Gly Leu  
130 135 140

Leu Lys Thr Leu Gln Lys Leu Asp Glu Tyr Leu Asn Ser Pro Leu Pro  
145 150 155 160

Asp Glu Ile Asp Glu Asn Ser Met Glu Asp Ile Lys Phe Ser Thr Arg  
165 170 175

Lys Phe Leu Asp Gly Asn Glu Met Thr Leu Ala Asp Cys Asn Leu Leu  
180 185 190

Pro Lys Leu His Ile Val Lys Val Val Ala Lys Lys Tyr Arg Asn Phe  
195 200 205

Asp Ile Pro Lys Glu Met Thr Gly Ile Trp Arg Tyr Leu Thr Asn Ala  
210 215 220

Tyr Ser Arg Asp Glu Phe Thr Asn Thr Cys Pro Ser Asp Lys Glu Val  
225 230 235 240

Glu Ile Ala Tyr Ser Asp Val Ala Lys Arg Leu Thr Lys  
245 250

<210> 6

<211> 251

<212> PRT

<213> Homo sapiens

<400> 6

Met Thr Asp Ser Ala Thr Ala Asn Gly Asp Asp Ser Asp Pro Glu Ile  
1 5 10 15

Glu Leu Phe Val Lys Ala Gly Ile Asp Gly Glu Ser Ile Gly Asn Cys  
20 25 30

Pro Phe Ser Gln Arg Leu Phe Met Ile Leu Trp Leu Lys Gly Val Val  
35 40 45

Phe Asn Val Thr Thr Val Asp Leu Lys Arg Lys Pro Ala Asp Leu His  
50 55 60

Asn Leu Ala Pro Gly Thr His Pro Pro Phe Leu Thr Phe Asn Gly Asp  
65 70 75 80

Val Lys Thr Asp Val Asn Lys Ile Glu Glu Phe Leu Glu Glu Thr Leu  
85 90 95

Thr Pro Glu Lys Tyr Pro Lys Leu Ala Ala Lys His Arg Glu Ser Asn  
100 105 110

Thr Ala Gly Ile Asp Ile Phe Ser Lys Phe Ser Ala Tyr Ile Lys Asn  
115 120 125

Thr Lys Gln Gln Asn Asn Ala Ala Leu Glu Arg Gly Leu Thr Lys Ala  
130 135 140

Leu Lys Lys Leu Asp Asp Tyr Leu Asn Thr Pro Leu Pro Glu Glu Ile  
145 150 155 160

Asp Ala Asn Thr Cys Gly Glu Asp Lys Gly Ser Arg Arg Lys Phe Leu  
165 170 175

Asp Gly Asp Glu Leu Thr Leu Ala Asp Cys Asn Leu Leu Pro Lys Leu  
180 185 190

His Val Val Lys Ile Val Ala Lys Lys Tyr Arg Asn Tyr Asp Ile Pro  
195 200 205

Ala Glu Met Thr Gly Leu Trp Arg Tyr Leu Lys Asn Ala Tyr Ala Arg  
210 215 220

Asp Glu Phe Thr Asn Thr Cys Ala Ala Asp Ser Glu Ile Glu Leu Ala  
225 230 235 240

Tyr Ala Asp Val Ala Lys Arg Leu Ser Arg Ser  
245 250

<210> 7

<211> 290

<212> PRT

<213> C. elegans

<400> 7

Met Ala Glu Ala Tyr Gln Ile Gln Ser Asn Gly Asp Pro Gln Ser Lys  
1 5 10 15

Pro Leu Leu Glu Leu Tyr Val Lys Ala Ser Gly Ile Asp Ala Arg Arg  
20 25 30

Ile Gly Ala Asp Leu Phe Cys Gln Glu Phe Trp Met Glu Leu Tyr Ala  
35 40 45

Leu Tyr Glu Ile Gly Val Ala Arg Val Glu Val Lys Thr Val Asn Val  
50 55 60

Asn Ser Glu Ala Phe Lys Lys Asn Phe Leu Gly Ala Gln Pro Pro Ile  
65 70 75 80

Met Ile Glu Glu Glu Lys Glu Leu Thr Tyr Thr Asp Asn Arg Glu Ile  
85 90 95

Glu Gly Arg Ile Phe His Leu Ala Lys Glu Phe Asn Val Pro Leu Phe  
100 105 110

Glu Lys Asp Pro Ser Ala Glu Lys Arg Ile Glu Asn Leu Tyr Arg Asn  
115 120 125

Phe Lys Leu Phe Leu Arg Ala Lys Val Glu Phe Asp Lys Gly Lys Lys  
130 135 140

Glu Pro Ser Arg Val Glu Asp Leu Pro Ala Gln Ile Lys Val His Tyr  
145 150 155 160

Asn Arg Val Cys Glu Gln Leu Ser Asn Ile Asp Gln Leu Leu Ser Glu  
165 170 175

Arg Lys Ser Arg Tyr Leu Leu Gly Asn Ser Met Thr Glu Tyr Asp Cys  
180 185 190

Glu Leu Met Pro Arg Leu His His Ile Arg Ile Ile Gly Leu Ser Leu  
195 200 205

Leu Gly Phe Asp Ile Pro His Asn Phe Thr His Leu Trp Ala Tyr Ile  
210 215 220



Leu Thr Ala Tyr Arg Thr Ala Ala Phe Ile Glu Ser Cys Pro Ala Asp  
 225 230 235 240

Gln Asp Ile Ile His His Tyr Lys Glu Gln Met Asn Leu Phe Thr Asn  
 245 250 255

Gln Arg Glu Thr Leu Gln Ser Pro Thr Lys Thr His Thr Ile Pro Glu  
 260 265 270

Lys Val Leu Ser Asp Ile Arg Val Lys Gly Leu Ala Pro Asp Val Asn  
 275 280 285

Val His  
 290

<210> 8

<211> 25

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 8

cactcaggct tacagcactc ttgac

25

<210> 9

<211> 23

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 9

ttcacacaat ttcggcaggt tag

23

<210> 10

<211> 51

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 10

agtcgacctg cagggcatgca agctcatatc tggaattagc ggtggttggt g 51

<210> 11

<211> 45

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 11

agtcgacctg cagggcatgca agctatcggg agcaagtcct ttaac 45

<210> 12

<211> 45

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 12

agtcgacctg cagggcatgca agctatcggg agcaagtcct ttaac 45

<210> 13

<211> 51

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 13

agtcgacctg cagggcatgca agctaatatg atgaagacgt ggcacagtt c 51

<210> 14

<211> 48

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 14

agtcgacctg caggcatgca agctagaatt cacgttgaca gtcttcac

48

<210> 15

<211> 48

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 15

agtcgacctg caggcatgca agcttgcaac tccaatctca taaagagc

48

<210> 16

<211> 45

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 16

agtcgacctg caggcatgca agctatcggg agcaagtcct ttaac

45

<210> 17

<211> 35

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 17

cttggggtac cccatggcag aagcttacca gatcc

35

<210> 18

<211> 36

<212> DNA

<213> Artificial

<220>

<223> Primer

<400> 18

catgccatgg catgttaatg aacattaaca tcggga

36